

Claims

1. A plasma display panel in which a plurality of pairs of display electrodes extending in a row direction are aligned on a surface of a first substrate, a plurality of address electrodes extending in a column direction are disposed in a stripe pattern on a surface of a second substrate, the first and second substrates are disposed opposite each other so that the pairs of display electrodes and the address electrodes cross over sandwiching discharge space therebetween, and a discharge cell is formed corresponding to each crossover portion, wherein

the pairs of display electrodes are composed of a metallic material,

each display electrode of each pair of display electrodes comprises a base part extending in the row direction and a plurality of opposing parts extending from the base part into a discharge interval between the each pair of display electrodes, and

in each discharge cell, at least two discharge starting gaps are formed, each discharge starting gap existing between opposing parts that respectively belong each of the pair display electrodes and being at least partially over the address electrode, and discharge space existing between the each discharge starting gap and the address electrode.

2. The plasma display panel of Claim 1, wherein

each opposing part is constructed from a connecting part that extends from the base part into the discharge interval between the pair of display electrodes and a main discharge part that extends

in the row direction from the connecting part, the main discharge part being longer than a column-direction width of the connecting part, and

each discharge starting gap is formed between two main
5 discharge parts that respectively belong to each of the pair of display electrodes.

3. The plasma display panel of Claim 1, wherein
the opposing parts of each display electrode are symmetrically
10 positioned between the pair of display electrodes.

4. The plasma display panel of Claim 1, wherein
the address electrode includes, at least in each discharge
cell, a plurality of branch parts extending in the column direction,
15 and

in each discharge cell, each discharge starting gap is
positioned over a branch part, discharge space existing between the
each discharge starting gap and the branch part.

20 5. The plasma display panel of Claim 1, wherein
the opposing parts are disposed at a plurality of locations
along each display electrode in the row direction, and
each gap between adjacent opposing parts of a same polarity
is narrower than a width of the address electrode.

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6. The plasma display panel of Claim 1, wherein
in each discharge cell, each display electrode is provided
with a plurality of the opposing parts disposed in a column direction,

and

a width of each discharge starting gap is set to be narrower than a width of the address electrode.

5 7. The plasma display panel of Claim 1, wherein
auxiliary barrier ribs are individually disposed extending
in the row direction between discharge cells that are adjacent in
the column direction.

10 8. The plasma display panel of Claim 1, wherein
a dielectric layer is provided so as to cover the display
electrodes on the surface of the first substrate on which the display
electrodes are aligned, and
in each discharge cell,
15 a thin layer area is provided in the dielectric layer in
correspondence with each position of the main discharge gaps.

 9. The plasma display panel of Claim 1, wherein
a dielectric layer is provided so as to cover the display
20 electrodes on the surface of the first substrate on which the display
electrodes are disposed, and
in each discharge cell,
one or more thick layer area is provided in the dielectric
layer in correspondence with positions of gaps between adjacent
25 opposing parts of a same polarity.

 10. The plasma display panel of Claim 1, wherein
the metallic material includes at least one of Ag, Cu, Al,

Cr and Ti, or includes at least one of Cr/Cu/Cr and Al-Nd.